

**IN THE CLAIMS**

Pursuant to 37 CFR §1.121(c), the claim listing, including the text of the claims, will serve to replace all prior versions of the claims, in the application.

Please amend claims 6, 13, 14, 25, 46, 56, 64, 65, 70, 75, 77, 76, 92, 115, 119, 120 and 121, and add claims 122 through 128, as follows:

1. (previously presented) A plug, comprising:
  - a first base bearing a keyway providing a first electrical conductor and an orifice spaced-apart from and separated by a mass of said plug from said keyway;
  - a second base separated by an axial length of said plug from said first base, said second base disposed to support a cam, said mass being perforated by a plurality of radially oriented apertures forming an array;
  - an exterior surface extending between and engaging said first base and said second base;
  - a sidebar positioned between said first base and said second base to reciprocate between a first location with said sidebar simultaneously engaging said plug and a cylinder surrounding said plug, and a second location releasing said plug for relative to movement between the cylinder and said plug;
  - a locking mechanism disposed within said apertures to move relative to said plug in response to a key inserted into said keyway to accommodate reciprocation of said sidebar relative to said plug and rotation of said plug relative to the cylinder when the key while inserted into said keyway engages in a selected relation with said locking mechanism, and obstructing said reciprocation absent said selected relation;
  - a second electrical conductor terminating with an electrical contact exposed to an exterior of said first base through said orifice;
  - an electronic logic circuit borne by said plug while coupled to receive electrical data signals via said first and second electrical conductors, and generating

22 control signals in dependence upon said electrical power and data signals; and  
23 an electrical operator disposed within one of said apertures, said operator  
24 having a distal member travelling in dependence upon said control signals between a first  
25 position relative to said exterior surface obstructing said relative movement by engaging  
26 a detent protruding from the cylinder, and a second and different position relative to said  
27 exterior surface accommodating said relative movement.

1 2. (previously presented) The plug of claim 1, comprising said locking  
2 mechanism, logic circuit and electrical operator simultaneously experiencing said  
3 rotation relative to the cylinder whenever said plug rotates relative to the cylinder.

1 3. (previously presented) The plug of claim 1, comprising said locking  
2 mechanism, logic circuit and electrical operator being wholly within the cylinder and  
3 travelling with said plug whenever said plug moves relative to the cylinder.

1 4. (previously presented) The plug of claim 1, with said electrical operator  
2 maintaining said distal member within said plug with said distal member extended not  
3 beyond said exterior surface while said distal member is in said first position, and  
4 maintaining said distal member in concurrent engagement with said plug and with the  
5 detent while said distal member is in said first position.

1 5. (previously presented) The plug of claim 1, with said electrical operator  
2 maintaining said distal member within said plug with said distal member extending not  
3 beyond said exterior surface while said distal member is in said first position, and moving  
4 said distal member radially between relative to said exterior surface in dependence upon  
5 said control signals.

1           6. (currently amended) A lock, comprising:

2                 a cylinder containing a hollow recess defining a longitudinal axis and a  
3 stationary detent extending from said cylinder;

4                 a plug bearing a plurality of open radially oriented apertures forming an  
5 array, said plug being rotatable around said longitudinal axis while resident within said  
6 hollow recess, said plug comprising:

7                     a first base bearing a keyway providing a first electrical conductor  
8 and an orifice spaced-apart from and separated by a mass of said plug from said  
9 keyway;

10                    a second base separated by an axial length of said plug from said  
11 first base, said second base disposed to support a cam;

12                    an exterior surface extending between and engaging said first base  
13 and said second base;

14                    a sidebar positioned between said first base and said second base to create  
15 an obstruction to relative movement between said cylinder and said plug;

16                    a locking ~~means~~ device disposed within said apertures to release an  
17 obstruction when the key while inserted into said keyway engages in a selected relation  
18 with said locking means, and to maintain said obstruction absent said selected relation;

19                    a second electrical conductor terminating with an electrical contact exposed  
20 to an exterior of said first base through said orifice;

21                    an electronic logic circuit borne by said plug, coupled to receive electrical  
22 data signals via said first and second electrical conductors, and generating control signals  
23 in dependence upon said electrical power and data signals; and

24                    an electrical operator borne by said plug, disposed within one of said  
25 apertures, said operator having a distal member radially traveling along an axis transverse  
26 to said longitudinal axis, in dependence upon said control signals between a first position  
27 relative to said exterior surface ~~by engaging said detent and thereby obstructing to~~

28 obstruct said movement in concert with said locking device and a second and different  
29 position relative to said exterior surface accommodating said movement.

1 7. (previously presented) The plug of claim 6, comprising said locking device,  
2 logic circuit and electrical operator simultaneously experiencing said rotation relative to  
3 the cylinder whenever said plug rotates relative to the cylinder.

1 8. (previously presented) The plug of claim 6, comprising said locking device,  
2 logic circuit and electrical operator being wholly within the cylinder and travelling with  
3 said plug whenever said plug moves relative to the cylinder.

1 9. (previously presented) The plug of claim 6, with said electrical operator  
2 maintaining said distal member within said plug with said distal member extended not  
3 beyond said exterior surface while said distal member is in said second position, and  
4 maintaining said distal member in engagement with said detent while said distal member  
5 is in said first position.

1 10. (previously presented) The plug of claim 6, with said electrical operator  
2 maintaining said distal member within said plug with said distal member extending not  
3 beyond said exterior surface while said distal member is in said first position.

1 11. (previously presented) A lock, comprising:  
2 a shell containing a hollow recess defining a longitudinal axis and an  
3 interior cylindrical surface, said shell bearing a detent extending into said shell;  
4 a plug rotatable around said longitudinal axis while resident within said  
5 hollow recess, and a bar interposed between said shell and said plug generally along a  
6 radial plane engaging both said shell and said plug while obstructing rotation of said plug

7 within said recess, said plug comprising:

8 a first base providing a first electrical conductor;

9 a second base separated by an axial length of said plug from said  
10 first base;

11 an exterior surface extending between and engaging said first base  
12 and said second base;

13 a locking device responsive to a key inserted into said keyway  
14 accommodating relative movement between said shell and said plug when the key  
15 while inserted into said keyway engages in a selected relation with said locking  
16 device and obstructing said relative movement absent said selected relation;

17 a second electrical conductor terminating with an electrical contact  
18 exposed to an exterior of said first base through said orifice;

19 an electronic logic circuit coupled to receive electrical data signals  
20 via said first and second electrical conductors, and generating control signals in  
21 dependence upon said data signals; and

22 an electrical operator having a distal member moving relative to said  
23 detent, in dependence upon said control signals between a first orientation relative  
24 to said exterior surface enabling said relative movement and a second and different  
25 orientation relative to said exterior surface obstructing said relative movement  
26 when said distal member at least partially surrounds said detent.

1 12. (previously presented) The plug of claim 1, further comprised of said:

2 electrical operator comprising an electrical coil coaxially aligned with said  
3 distal member, to move said distal member between said second position and said first  
4 position in response to said control signals; and

5 said distal member bearing a circumferential surface blocking said relative  
6 movement while said distal member is in said second position, and a variation in said

7 circumferential surface accommodating said relative movement while said distal member  
8 is in said first position.

1 13. (currently amended) The plug of claim 6, further comprised of said:  
2 electrical operator comprising an electrical coil coaxially aligned with said  
3 distal member, to move said distal member between said second position and said first  
4 position in response to said control signals; and  
5 distal member bearing a circumferential surface ~~engaging said detent~~  
6 obstructing said relative movement while said distal member is in said second position,  
7 and a variation in said circumferential surface accommodating said relative movement  
8 while said distal member is in said first position.

1 14. (currently amended) A lock, comprising:  
2 a cylinder containing a hollow interior recess defining a longitudinal axis,  
3 and bearing a slot within said recess; and  
4 a plug rotatable from a rest orientation around said longitudinal axis while  
5 resident within said hollow recess relative to said cylinder; and  
6 a stationary detent positioned between said first end and second end while  
7 extending into said slot, and providing simultaneous engagement of said cylinder and  
8 said plug while said cylinder remains in said rest orientation;  
9 said plug comprising:  
10 a first base bearing an opening accommodating insertion of a key and  
11 providing a first electrical conductor;  
12 a second base separated by an axial length of said plug from said  
13 first base, said second base disposed to support a cam, said mass being perforated  
14 by an aperture;  
15 an exterior surface extending between said first base and said second

16 base;

17 a retainer ~~retaining means~~ oriented to retain a shank of a key inserted  
18 into said opening while said plug remains in an orientation other than said rest  
19 orientation relative to said cylinder, and to accommodate removal of the key from  
20 said opening while said plug is in said rest orientation;

21 a second electrical conductor terminating with an electrical contact  
22 exposed to an exterior of said first base through said orifice;

23 an electronic logic circuit comprising a memory storing a code, said  
24 circuit being borne by said plug and coupled to receive electrical data signals via  
25 said first and second electrical conductors, said circuit generating control signals  
26 in dependence upon correspondence between said code and information borne by  
27 said data signals; and

28 an electrical operator borne by said plug, said operator having a  
29 distal member travelling in dependence upon said control signals between a first  
30 position relative to said exterior surface maintaining engagement of said detent  
31 and a second and different position relative to said exterior surface  
32 accommodating movement between said plug and said cylinder.

1 15. (previously presented) The lock of claim 14, further comprising:

2 said detent being borne by said cylinder; and

3 said distal member being oriented within said plug to move relative to said  
4 plug to accommodate rotation of said plug from said rest orientation relative to the  
5 cylinder when a key while inserted into said opening generates said data signals  
6 representing information having a selected said correspondence with said code, and  
7 obstructing said rotation absent said selected correspondence.

1 16. (previously presented) The lock of claim 14, further comprising:

2           said detent comprising an arm arcuately engaging said cylinder and a tooth  
3 extending from said arm and through said slot; and

4           said distal member being oriented within said plug to move relative to said  
5 plug to accommodate passage of said tooth relative to said distal member during rotation  
6 of said plug from said rest orientation relative to the cylinder when a key while inserted  
7 into said opening generates said data signals representing information having a selected  
8 said correspondence with said code, and obstructing said rotation of said plug from said  
9 rest orientation by engaging said tooth absent said selected correspondence.

1           17. (previously presented) The lock of claim 14, further comprising:

2           said detent comprising an arm arcuately engaging said cylinder and a tooth  
3 extending from said arm and through said slot; and

4           said distal member being oriented within said plug to move relative to said  
5 plug to accommodate passage of said tooth relative to said distal member during rotation  
6 of said plug from said rest orientation relative to the cylinder when a key while inserted  
7 into said opening generates said data signals representing information having a selected  
8 said correspondence with said code, obstructing said rotation of said plug from said rest  
9 orientation by engaging said tooth absent said selected correspondence, and  
10 accommodating passage of said tooth relative to said distal member during rotation of  
11 said plug from an orientation other than said rest orientation to said rest orientation.

1           18. (previously presented) The lock of claim 14, further comprising:

2           said detent comprising an arm arcuately engaging said cylinder and a tooth  
3 extending from said arm and through said slot; and

4           said distal member being oriented within said plug to move relative to said  
5 plug to accommodate passage of said tooth relative to said distal member during rotation  
6 of said plug from said rest orientation relative to the cylinder when a key while inserted



7 into said opening generates said data signals representing information having a selected  
8 said correspondence with said code, and obstructing said rotation of said plug from said  
9 rest orientation by engaging said tooth absent said selected correspondence when said  
10 rotation is in a first direction, and accommodating said rotation of said plug from said  
11 rest orientation despite an absence of said selected correspondence when said rotation is  
12 in a second and opposite direction.

1 19. (previously presented) The lock of claim 14, further comprising:

2 said detent comprising an arm arcuately engaging said cylinder and a tooth  
3 extending from said arm and through said slot; and

4 said distal member being oriented within said plug in an engagement of said  
5 tooth to obstruct said rotation of said plug from said rest orientation, and to move relative  
6 to said plug from said engagement of said tooth obstructing said rotation of said plug  
7 from said rest orientation to an accommodation of passage of said tooth relative to said  
8 distal member during rotation of said plug from said rest orientation relative to the  
9 cylinder when a key while inserted into said opening generates said data signals  
10 representing information having a selected said correspondence with said code, and  
11 continuing said accommodation despite intermittent removal of the key from said  
12 opening.

1 20. (previously presented) The lock of claim 14, further comprising:

2 said detent comprising an arm arcuately engaging said cylinder and a tooth  
3 extending from said arm and through said slot; and

4 said distal member being oriented within said plug in an engagement of said  
5 tooth to obstruct said rotation of said plug from said rest orientation, and to move relative  
6 to said plug from said engagement of said tooth obstructing said rotation of said plug  
7 from said rest orientation to an accommodation of passage of said tooth relative to said

8 distal member during rotation of said plug from said rest orientation relative to the  
9 cylinder when a key while inserted into said keyway generates said data signals  
10 representing information having a selected said correspondence with said code, and  
11 continuing said accommodation despite intermittent removal of the key from said  
12 opening absent subsequent said generation of data signals representing information  
13 having said selected correspondence with said code.

1 21. (previously presented) The lock of claim 16, further comprising:

2 a sidebar positioned between said first base and said second base to provide  
3 reciprocation between a first location with said sidebar providing simultaneous  
4 engagement with said plug and said cylinder, and a second location releasing said plug  
5 for rotation relative to the cylinder; and

6 said electrical operator comprising an electrical solenoid borne by said  
7 plug, said distal member comprising an armature travelling in dependence upon said  
8 control signals between a third position relative to said exterior surface maintaining said  
9 simultaneous engagement and a fourth and different position relative to said exterior  
10 surface accommodating said reciprocation.

1 22. (previously presented) The lock of claim 17, further comprising:

2 a sidebar positioned between said first base and said second base to provide  
3 reciprocation between a first location with said sidebar providing simultaneous  
4 engagement with said plug and said cylinder, and a second location releasing said plug  
5 for rotation relative to the cylinder; and

6 said electrical operator comprising an electrical solenoid borne by said  
7 plug, said distal member comprising an armature travelling in dependence upon said  
8 control signals between a third position relative to said exterior surface maintaining said  
9 simultaneous engagement and a fourth and different position relative to said exterior

10 surface accommodating said reciprocation.

1 23. (previously presented) The lock of claim 18, further comprising:

2 a sidebar positioned between said first base and said second base to provide  
3 reciprocation between a first location with said sidebar providing simultaneous  
4 engagement with said plug and said cylinder, and a second location releasing said plug  
5 for rotation relative to the cylinder; and

6 said electrical operator comprising an electrical solenoid borne by said  
7 plug, said distal member comprising an armature travelling in dependence upon said  
8 control signals between a third position relative to said exterior surface maintaining said  
9 simultaneous engagement and a fourth and different position relative to said exterior  
10 surface accommodating said reciprocation.

1 24. (previously presented) The lock of claim 19, further comprising:

2 a sidebar positioned between said first base and said second base to provide  
3 reciprocation between a first location with said sidebar providing simultaneous  
4 engagement with said plug and said cylinder, and a second location releasing said plug  
5 for rotation relative to the cylinder; and

6 said electrical operator comprising an electrical solenoid borne by said  
7 plug, said member comprising an distal armature travelling in dependence upon said  
8 control signals between a third position relative to said exterior surface maintaining said  
9 simultaneous engagement and a fourth and different position relative to said exterior  
10 surface accommodating said reciprocation.

1 25. (currently amended) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an  
3 interior cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident within  
5 said hollow recess;

6 a stationary bar borne by said shell and interposed between said shell and  
7 said cylinder plug to create an obstruction to rotation of said cylinder plug within said  
8 recess;

9 said cylinder plug comprising:

10 a first base and a second base separated by an axial length of said cylinder  
11 plug from said first base, said second base configured to support a cam; and

12 an electrical operator borne by said cylinder plug and rotatable with said  
13 cylinder plug, said electrical operator being electrically operable to respond to a  
14 control signal by moving independently of said bar between one of a first  
15 orientation accommodating relative movement between said shell and said  
16 cylinder plug and a second and different orientation maintaining obstruction of  
17 said relative movement ~~by engaging said bar, and another of said first orientation~~  
18 ~~and said second orientation.~~

1 26. (previously presented) The lock of claim 25, further comprised of:

2 a logic circuit generating said control signal in response to a comparison  
3 between a code set within said logic circuit and a data signal applied to said logic circuit;  
4 and

5 said electrical operator moving between said second orientation and said  
6 first orientation in response to said control signal.

1 27. (previously presented) The lock of claim 25, further comprised of a key  
2 retainer maintaining a shank of a key within said cylinder plug during rotation of said  
3 cylinder plug relative to said shell.

1           28. (previously presented) The lock of claim 27, further comprised of a locking  
2 mechanism borne by said cylinder plug, said cylinder plug being perforated by an  
3 aperture admitting reciprocal travel of a key relative to said locking mechanism, and said  
4 locking mechanism obstructing movement of said cylinder plug relative to said shell  
5 absent the key exhibiting a selected relation with said locking mechanism.

1           29. (previously presented) The lock of claim 25, further comprised of a plurality  
2 of electrical conductors borne by said lock to engage a circuit in a key inserted into said  
3 cylinder plug.

1           30. (previously presented) The lock of claim 25, further comprised of a power  
2 source to energize said electric operator, positioned to rotate with said cylinder plug  
3 relative to said shell.

1           31. (previously presented) The lock of claim 30, further comprised of said power  
2 source being mounted on a key.

1           32. (previously presented) The lock of claim 25, further comprised of a network of  
2 a plurality of cylinder plugs including said cylinder plug, and a switching device  
3 controlling operation of said network.

1           33. (previously presented) The lock of claim 32, with said switching device  
2 comprising a logic circuit.

1           34. (previously presented) The lock of claim 1, further comprised of said:  
2           electrical operator comprising an electrical coil moving said distal member,  
3 to reciprocate said distal member between said first position and said second position in

4 response to said control signals; and

5 said distal member bearing a circumferential surface blocking said radial  
6 movement of said sidebar while said distal member is in said second position, and  
7 accommodating said radial movement while said distal member is in said first position.

1 35. (previously presented) The lock of claim 6, further comprised of said:

2 electrical operator comprising an electrical coil moving said distal member,  
3 to reciprocate said distal member between said first position and said second position in  
4 response to said control signals; and

5 said distal member bearing a circumferential surface blocking said radial  
6 movement of said sidebar while said distal member is in said second position, and  
7 accommodating said radial movement while said distal member is in said first position.

1 36. (previously presented) The lock of claim 16, further comprising said distal  
2 member bearing a mass engaging said detent and blocking said rotation while said distal  
3 member is in said first position, and a groove through said mass accommodating relative  
4 passage between said distal member relative to said detent while said distal member is in  
5 said second position.

1 37. (previously presented) The lock of claim 16, further comprising said distal  
2 member bearing a mass exhibiting a first height accommodating relative passage between  
3 said distal member relative to said detent while said distal member is in said second  
4 position, and a second and greater height engaging and blocking said rotation while said  
5 distal member is in said first position.

1 38. (previously presented) The lock of claim 16, further comprising said distal  
2 member bearing a mass having a periphery engaging said detent and blocking said  
3 rotation while said distal member is in said first position, and a central variation in said

4 mass relative to said periphery accommodating relative passage between said distal  
member and said detent while said distal member is in said second position.

1 39. (previously presented) The lock of claim 25, further comprising:  
2 a logic circuit generating said control signal in response to a comparison  
3 between a code set within said logic circuit and a data signal applied to said logic circuit;  
4 a conductor provided by said cylinder plug, conveying said data signal to  
5 said logic circuit; and  
6 said electrical operator moving from said second orientation to said first  
7 orientation in response to said control signal.

1 40. (previously presented) The lock of claim 39, with said conductor comprising  
2 an electrical conductor.

1 41. (previously presented) The lock of claim 25, further comprising:  
2 a logic circuit borne by said cylinder plug, generating said control signal in  
3 response to a comparison between a code set within said logic circuit and a data signal  
4 applied to said logic circuit;  
5 a conductor borne by said cylinder plug, conveying said data signal to said  
6 logic circuit; and  
7 said electrical operator moving between said second orientation and said  
8 first orientation in response to said control signal.

1 42. (previously presented) The lock of claim 41, with said conductor comprising  
2 an electrical conductor.

1 43. (withdrawn) A lock, comprising:

2 a cylinder containing a hollow interior recess defining a longitudinal axis,  
3 and bearing a slot within said recess; and

4 a cylinder plug rotatable from a rest orientation around said longitudinal  
5 axis while resident within said hollow recess relative to said cylinder; and

6 an elongate member positioned between said cylinder and said cylinder  
7 plug, and while extending into said slot, preventing rotation between said cylinder and  
8 said cylinder plug by making a direct simultaneous engagement of said cylinder and said  
9 cylinder plug while said plug remains in said rest orientation and, in response to a torque  
10 that is externally applied to said cylinder plug and that causes said rotation of said  
11 cylinder plug within said shell, exiting said slot while maintaining a second simultaneous  
12 engagement of said cylinder and said cylinder plug that accommodates said rotation;

13 said cylinder plug comprising:

14 a first base bearing an orifice spaced-apart from and separated by a  
15 mass of said cylinder plug;

16 a second base separated by an axial length of said cylinder plug from  
17 said first base, ~~said second base disposed to support a cam~~, said mass being  
18 penetrated by a radially oriented aperture;

19 an exterior surface extending between said first base and said second  
20 base;

21 a conductor having a terminal exposed to an exterior of said first  
22 base through said orifice;

23 an electronic logic circuit comprising a memory storing a code, said  
24 circuit being borne by said cylinder plug and coupled to receive data signals via  
25 said conductor, said circuit generating control signals in dependence upon a  
26 comparison between said code and information borne by said data signal;

27 an electrical operator mounted within said aperture, said operator  
28 having a movable member traveling in dependence upon said control signals



29 between a first position relative to said exterior surface maintaining said  
30 simultaneous engagement by blocking movement of said elongated member from  
31 said direct simultaneous engagement and a second and different position relative  
32 to said exterior surface accommodating movement between said plug and said  
33 cylinder; and

34 a component biasing said movable member to maintain said  
35 simultaneous engagement.

1 44. (withdrawn) The lock of claim 43, further comprising:

2 said elongate member comprising a sidebar positioned between said first  
3 base and said second base to reciprocate between a first location while providing said  
4 simultaneous engagement, and a second location releasing said plug for rotation relative  
5 to said cylinder; and

6 said movable member being oriented within said plug to move relative to  
7 said plug to accommodate reciprocation of said sidebar relative to said plug and rotation  
8 of said plug from said rest orientation relative to the cylinder when a key while inserted  
9 into said plug generates said data signals representing information having a selected said  
10 comparison with said code, and obstructing said reciprocation absent said selected  
11 comparison.

1 45. (withdrawn) The lock of claim 43, further comprising:

2 said elongate member comprising an arm arcuately engaging said cylinder  
3 and a detent extending from said arm and through said slot; and

4 said movable member being oriented within said plug to move relative to  
5 said plug to accommodate passage of said detent relative to said movable member during  
6 rotation of said plug from said rest orientation relative to the cylinder when a key while  
7 inserted into said plug generates said data signals representing information having a

8 selected said correspondence with said code, and obstructing said rotation of said plug  
9 from said rest orientation by engaging said detent absent said selected correspondence.

1 46. (currently amended) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an  
3 interior cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident within  
5 said hollow recess;

6 a bar borne by said plug and rotatable with said plug relative to said shell,  
7 said bar being interposed between said shell and said cylinder plug to reciprocate  
8 ~~generally along a radial plane~~ between a first position engaging both said shell and said  
9 cylinder plug while obstructing rotation of said cylinder plug within said recess, and a  
10 second position accommodating said rotation, said cylinder plug comprising:

11 a first base and a second base separated by an axial length of said  
12 plug from said first base, said second base bearing means for supporting a cam;  
13 and

14 an electrical operator being electrically operable to respond to an electrical  
15 control signal by obstructing movement of said bar between said first position and said  
16 second position in response to a first state of said control signal and by moving within a  
17 second and different plane not coextensive with said radial plane in response to  
18 application of said control signal to accommodate said movement of said bar in response  
19 to a second and different state of said control signal.

1 47. (previously presented) The lock of claim 46, further comprised of said  
2 operator directly obstructing movement of said bar between said first position and said  
3 second position absent said control signal.

1           48. (previously presented) The lock of claim 46, further comprised of:  
2           a logic circuit borne by said cylinder plug generating said control signal in  
3 response to a comparison between a code set within said logic circuit and a data signal  
4 applied to said logic circuit; and  
5           said electrical operator moving to accommodate said movement by said bar  
6 in response to said control signal.

1           49. (previously presented) The lock of claim 46, further comprised of a locking  
2 mechanism borne by said cylinder plug, said cylinder plug being perforated by an  
3 aperture admitting reciprocal travel of a key relative to said locking mechanism, and said  
4 locking mechanism obstructing movement of said cylinder plug relative to said shell  
5 absent the key exhibiting a selected relation with said locking mechanism.

1           50. (previously presented) The lock of claim 46, further comprised of a plurality of  
2 electrical conductors borne by said lock to engage a circuit in a key inserted into said  
3 cylinder plug.

1           51. (previously presented) The lock of claim 46, further comprised of a power  
2 source energizing said electric operator to move during said second and different state of  
3 said control signal, positioned to rotate with said cylinder plug relative to said shell.

1           52. (previously presented) The lock of claim 51, further comprised of said plug  
2 containing a keyway, and said power source being mounted on a key insertable into said  
3 keyway.

1           53. (previously presented) The lock of claim 46, further comprised of a network of  
2 plugs including said cylinder plug, and a switching device controlling operation of said

3 network and said state of said control signal.

1 54. (previously presented) The lock of claim 46, further comprised of:  
2 said cylinder plug containing a keyway;  
3 a memory borne by said cylinder plug and storing a code; and  
4 a logic circuit comprising a memory storing a code, said circuit being borne  
5 by said cylinder plug and generating said control signal in dependence upon  
6 correspondence between said code and data borne by a key insertable within said keyway.

1 55. (previously presented) The lock of claim 25, further comprised of:  
2 said cylinder plug containing a keyway;  
3 a memory borne by said cylinder plug and storing a code; and  
4 a logic circuit comprising a memory storing a code, said circuit being borne  
5 by said cylinder plug and generating said control signal in dependence upon  
6 correspondence between said code and data borne by a key insertable within said keyway.

1 56. (currently amended) A lock, comprising:  
2 a shell containing a hollow recess defining a longitudinal axis and an  
3 interior cylindrical surface;  
4 a plug rotatable around said longitudinal axis while resident within said  
5 hollow recess;  
6 an elongate member interposed between said shell and said plug to travel  
7 ~~generally along a radial direction~~ between a first position where said elongate member  
8 obstructs rotation between said shell and said plug by making ~~a direct~~ simultaneous  
9 engagement of both said shell and said plug, and in response to a torque that is externally  
10 applied to said plug and causes rotation of said plug within said shell, exiting said recess  
11 and traveling to a second position while maintaining a second simultaneous engagement

12 of said shell and said plug that accommodates said rotation;

13 said plug comprising:

14 a first base perforated by an aperture, and a second base separated by  
15 an axial length of said plug from said first base, ~~said second base bearing means~~  
16 ~~for supporting a cam;~~

17 a logic circuit borne by said plug and rotatable with said plug,  
18 conveying said data signal between said aperture to said logic circuit; and

19 an electrical operator responding to said control signals by moving  
20 independently of said travel by said elongate member in a second direction within  
21 a plane that maintains said simultaneous engagement ~~but is not aligned with said~~  
22 ~~radial direction~~ between one of a first orientation obstructing said travel and  
23 relative operable movement between said shell and said plug while said electrical  
24 operator is contained wholly within said plug, and a second and different  
25 orientation accommodating said travel and said relative operable movement  
26 between said shell and said plug, ~~and another of said first orientation and said~~  
27 ~~second orientation.~~

Claims 57-63. (Canceled)

1 64. (currently amended) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an  
3 interior cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident within  
5 said hollow recess, said cylinder plug comprising a first base and a second base separated  
6 by an axial length of said cylinder plug from said first base, said second base bearing  
7 means for supporting a cam;

8 a sidebar interposed between said shell and said cylinder plug to travel

generally along a radial plane between a first position engaging both said shell and said plug while obstructing rotation of said cylinder plug within said recess, and a second position accommodating said rotation;

a logic circuit generating an electrical control signal in response to a comparison between a code set within said logic circuit and a data signal applied to said logic circuit;

an electrical conductor provided by said plug, conveying said data signal to said logic circuit; and

an electrical operator borne by said cylinder plug and rotatable with said plug, said electrical operator being electrically operable to respond to said control signal by moving in a different plane independently of said travel by said sidebar, between one of a first orientation providing obstruction of said travel and a second and different orientation accommodating said travel, ~~and another of said first orientation and said second orientation;~~

said sidebar having a first portion that is positioned to be optionally blocked by another component of said lock functioning independently of said electrical operator to prevent said travel of said sidebar, and a second portion that is positioned to be blocked from said travel by said sidebar to said second position whenever said electrical operator is within said first orientation, and a second portion that is positioned to be optionally blocked by another component of said lock.

65. (currently amended) A lock, comprising:

a shell containing a hollow recess defining a longitudinal axis and an interior cylindrical surface;

a cylinder plug rotatable around said longitudinal axis while resident within said hollow recess, said cylinder plug comprising a first base and a second base separated by an axial length of said cylinder plug from said first base, ~~said second base bearing~~

7 ~~means for supporting a cam;~~

8 a bar interposed between said shell and said cylinder plug to travel  
9 generally along a radial plane between a first position engaging both said shell and said  
10 plug while obstructing rotation of said cylinder plug within said recess, and a second  
11 position accommodating said rotation;

12 a logic circuit generating a control signal in response to a comparison  
13 between a code set within said logic circuit and a data signal applied to said logic circuit;

14 an electrical conductor provided by said plug, conveying said data signal to  
15 said logic circuit; and

16 an electrical operator comprising an armature, said armature being borne by  
17 said cylinder plug and rotating around said longitudinal axis with said plug, said  
18 electrical operator being electrically operable to respond to said control signal by moving  
19 independently of said travel, between one of a first orientation providing obstruction of  
20 said travel and a second and different orientation accommodating said travel, ~~and another~~  
21 ~~of said first orientation and said second orientation.~~

1 66. (previously presented) The lock of claim 65, with said electrical operator  
2 further comprising a coil of an electrically conducting material that is borne by said  
3 cylinder plug and wound to drive said armature to move from one of said first and second  
4 orientations to the other of said first and second orientations in response to said control  
5 signal.

1 67. (previously presented) The lock of claim 65, with said electrical operator  
2 further comprising a coil of an electrically conducting material that is borne by said  
3 cylinder plug and wound to drive said armature to move from said first orientation to said  
4 second orientation in response to said control signal.

1           68. (previously presented) The lock of claim 65, with electrical operator further  
2 comprising a coil of an electrically conducting material that is borne by said cylinder plug  
3 and wound to drive said armature to rotate around an arc in response to said control  
4 signal.

1           69. (previously presented) The lock of claim 65, with said electrical operator  
2 further comprising a coil of an electrically conducting material that is borne by said  
3 cylinder plug and wound to drive said armature to reciprocate along a radial axis that is  
4 transverse to said radial plane in response to said control signal.

1           70. (currently amended) A lock, comprising:  
2           a shell containing a hollow recess defining a longitudinal axis and an  
3 interior cylindrical surface;  
4           a cylinder plug rotatable around said longitudinal axis while resident within  
5 said hollow recess, said cylinder plug comprising a first base and a second base separated  
6 by an axial length of said cylinder plug from said first base, ~~said second base bearing~~  
7 ~~means for supporting a cam;~~  
8           a bar interposed between said shell and said cylinder plug to travel  
9 generally along a radial plane between a first position engaging both said shell and said  
10 plug while obstructing rotation of said cylinder plug within said recess, and a second  
11 position accommodating said rotation;  
12           a logic circuit generating said control signal in response to a comparison  
13 between a code set within said logical circuit and a data signal applied to said logical  
14 circuit;  
15           an electrical conductor provided by said plug, conveying said data signal to  
16 said logic circuit; and  
17           an electrical operator borne by said cylinder plug and rotatable with said



18 plug, said electrical operator being electrically operable to respond to an electrical  
19 control signal applied to said electrical operator by moving along a geometrical construct  
20 other than to said radial plane between one of a first orientation providing obstruction of  
21 said travel and a second and different orientation accommodating said travel, ~~and another~~  
22 ~~of said first orientation and said second orientation.~~

1 71. (previously presented) The lock of claim 70, with said electrical operator  
2 further comprising an armature and a coil of an electrically conducting material that is  
3 borne by said cylinder plug and wound to drive said armature to move along said  
4 geometric construct in response to said control signal.

1 72. (previously presented) The lock of claim 70, with said electrical operator  
2 further comprising an armature and a coil of an electrically conducting material that is  
3 borne by said cylinder plug and wound to drive said armature to move along said  
4 geometric construct in response to said control signal from said second orientation to said  
5 first orientation.

1 73. (withdrawn) The lock of claim 70, with said geometric construct comprising  
2 an arc and said electrical operator further comprising an armature and a coil of an  
3 electrically conducting material that is borne by said cylinder plug and wound to drive  
4 said armature to rotate around said arc in response to said control signal.

1 74. (previously presented) The lock of claim 70, with said geometric construct  
2 comprising a radial axis that is transverse to said radial plane, and said electrical operator  
3 further comprising an armature and a coil of an electrically conducting material that is  
4 borne by said cylinder plug and wound to drive said armature to reciprocate along said  
5 radial axis in response to said control signal.

1           75. (currently amended) A lock, comprising:

2                 a shell containing a hollow recess defining a longitudinal axis and an  
3 interior cylindrical surface;

4                 a cylinder plug rotatable around said longitudinal axis while resident within  
5 said hollow recess, said cylinder plug comprising a first base and a second base separated  
6 by an axial length of said cylinder plug from said first base, ~~said second base bearing~~  
7 ~~means for supporting a cam;~~

8                 a bar interposed between said shell and said cylinder plug to travel  
9 generally along a radial plane between a first position engaging both said shell and said  
10 plug while obstructing rotation of said cylinder plug within said recess, and a second  
11 position accommodating said rotation;

12                 a logic circuit generating a control signal in response to a comparison  
13 between a code set within said logic circuit and a data signal applied to said logic circuit;

14                 an electrical conductor provided by said plug, conveying said data signal to  
15 said logic circuit; and

16                 an electrical operator borne by said cylinder plug and rotatable with said  
17 plug, said electrical operator being electrically operable to respond to said control signal  
18 by moving along a radial axis that is transverse to said radial plane, between a first  
19 orientation providing obstruction of said travel and a second and different orientation  
20 accommodating said travel.

1           76. (currently amended) A lock, comprising:

2                 a shell containing a hollow recess defining a longitudinal axis and an  
3 interior cylindrical surface;

4                 a cylinder plug rotatable around said longitudinal axis while resident within  
5 said hollow recess, said cylinder plug comprising a first base and a second base separated

6 by an axial length of said cylinder plug from said first base, ~~said second base bearing~~  
7 ~~means for supporting a cam;~~

8 a logic circuit generating said control signal in response to a comparison  
9 between a code set within said logic circuit and a data signal applied to said logic circuit;

10 an electrical conductor provided by said plug, conveying said data signal to  
11 said logic circuit;

12 an elongate bar exhibiting a greatest longitudinal dimension along a second  
13 axis that extends transversely to said first base and to said second base, said bar being  
14 interposed between said shell and said cylinder plug to travel generally along a radial axis  
15 that is transverse to said second axis, between a first position engaging both said shell  
16 and said plug while obstructing rotation of said cylinder plug within said recess, and a  
17 second position accommodating said rotation; and

18 an electrical operator borne by said cylinder plug and rotatable with said  
19 plug, said electrical operator being electrically operable to respond to said control signal  
20 by moving along said radial axis between one of a first orientation providing obstruction  
21 of said travel and a second and different orientation accommodating said travel, ~~and~~  
22 ~~another of said first orientation and said second orientation.~~

1 77. (currently amended) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an  
3 interior cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident within  
5 said hollow recess, said cylinder plug comprising a first base and a second base separated  
6 by an axial length of said cylinder plug from said first base, ~~said second base bearing~~  
7 ~~means for supporting a cam;~~

8 a logic circuit generating said control signal in response to a comparison  
9 between a code set within said logic circuit and a data signal applied to said logic circuit;

10 an electrical conductor provided by said plug, conveying said data signal to  
11 said logic circuit;

12 an elongate bar exhibiting a greatest longitudinal dimension along a second  
13 axis that extends transversely to said first base and to said second base, said bar being  
14 interposed between said shell and said cylinder plug to travel generally along a radial axis  
15 that is radial to said cylinder plug and transverse to said second axis, between a first  
16 position engaging both said shell and said plug while obstructing rotation of said cylinder  
17 plug within said recess, and a second position accommodating said rotation; and

18 an electrical operator borne by said cylinder plug and rotatable with said  
19 plug, said electrical operator being electrically operable to respond to a control signal by  
20 moving between one of a first orientation providing obstruction of said travel and a  
21 second and different orientation accommodating said travel, ~~and another of said first~~  
22 ~~orientation and said second orientation.~~

1 78. (previously presented) The lock of claim 25, with said electrical operator  
2 further comprising an armature and a coil of an electrically conducting material that is  
3 borne by said cylinder plug and wound to drive said armature to move from one of said  
4 first and second orientations to the other of said first and second orientations in response  
5 to said control signal.

1 79. (previously presented) The lock of claim 25, with said electrical operator  
2 further comprising an armature and a coil of an electrically conducting material that is  
3 borne by said cylinder plug and wound to drive said armature to move from said first  
4 orientation to said second orientation in response to said control signal.

1 80. (previously presented) The lock of claim 25, with electrical operator further  
2 comprising an armature and a coil of an electrically conducting material that is borne by

3 said cylinder plug and wound to drive said armature to rotate around an arc in response to  
4 said control signal.

1 81. (previously presented) The lock of claim 25, with said electrical operator  
2 further comprising an armature and a coil of an electrically conducting material that is  
3 borne by said cylinder plug and wound to drive said armature to reciprocate along a radial  
axis that is transverse to said radial plane in response to said control signal.

1 82. (previously presented) The lock of claim 25, further comprised of a  
2 component biasing said bar to maintain said first position engaging both said shell and  
3 said plug.

1 83. (previously presented) The lock of claim 25, further comprised of a  
2 component biasing said electrical operator to maintain said second orientation providing  
3 obstruction of said bar.

1 84. (previously presented) The lock of claim 25, further comprised of:  
2 a first component biasing said bar to maintain said first position engaging both  
3 said shell and said plug; and  
4 a second component biasing said electrical operator to maintain said second  
5 orientation providing obstruction of said bar.

Claims 85-89. (Canceled)

1 90. (previously presented) A process of retrofitting a mechanical cylinder lock to

2 form an electromechanical cylinder lock, the process comprising steps of:

3 providing a mechanical cylinder lock including an outer shell with a bore, a first  
4 rotatable barrel located in the bore, and a side bar for preventing and permitting rotation  
5 of the barrel within the bore in the shell;

6 removing the first barrel from the shell;

7 providing an electronically powered rotatable barrel having an exterior adapted to  
8 substantially correspond to the bore in the shell, and including:

9 at least one electromechanical locking member disposed in the barrel, the  
10 electromechanical locking member being positionable to permit the side bar to engage the  
11 locking member in a non-barrel blocking position which permits the barrel to rotate with  
12 respect to the shell, and the electromechanical locking member also being positionable in  
13 a barrel blocking position which blocks rotation of the barrel with respect to the shell;  
14 and

15 an electronically powered drive mechanism cooperating with the  
16 electromechanical locking member to selectively move the locking member from the  
17 barrel blocking position to the non-barrel blocking position in which the side bar engages  
18 the locking member to rotate the barrel and operate the lock; and

19 securing the electronically powered rotatable barrel in the bore in the shell to form  
20 an electromechanical cylinder lock, the lock including control means carried by at least  
21 one of the barrel and bore for energizing the electronically powered drive mechanism in  
22 response to an authorized attempt to open the lock.

1 91. (previously presented) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an  
3 interior cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident within  
5 said hollow recess, said cylinder plug comprising a first base perforated by a keyway and

6 a second base separated by an axial length of said cylinder plug from said first base, said  
7 second base disposed to support a cam;

8 a bar interposed between said shell and said cylinder plug to reciprocate  
9 generally along a radial plane between a first position engaging both said shell and said  
10 plug while obstructing rotation of said cylinder plug within said recess, and a second  
11 position accommodating said rotation when a torque is externally applied to said keyway  
12 to rotate said cylinder plug within said shell;

13 a locking mechanism borne by and rotating with said cylinder plug, said  
14 locking mechanism being interposed between said cylinder plug and said bar, and  
15 exhibiting a first disposition hindering said reciprocation and, in response to insertion of  
16 a key in physical conformance to said locking mechanism, exhibiting a second and  
17 different disposition accommodating said reciprocation; and

18 an electrical operator borne by said cylinder plug and rotatable with said  
19 cylinder plug, said electrical operator being electrically operable to respond to a control  
20 signal by moving independently of said bar between a first orientation providing  
21 obstruction of said reciprocation by said bar and a second and different orientation  
22 removing said obstruction.

1 92. (currently amended) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an  
3 interior cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident within  
5 said hollow recess;

6 a bar interposed between said shell and said cylinder plug to extend  
7 generally along a radial plane between a first state engaging both said shell and said plug  
8 while obstructing rotation of said cylinder plug within said recess, and a second state  
9 accommodating said rotation;

10           said cylinder plug comprising:

11                 a first base and a second base separated by an axial length of said cylinder  
12           plug from said first base, said second base configured to support a cam; and

13                 an electrical operator comprising an armature borne by said cylinder plug  
14           and rotatable with said cylinder plug, said electrical operator being electrically  
15           operable to respond to a control signal by moving said armature independently of  
16           said bar, between one of a first orientation providing obstruction of said rotation  
17           during said first state and a second orientation accommodating independent  
18           relative movement between said bar and said cylinder plug, ~~and another of said~~  
19           ~~first orientation and said second orientation.~~

1           93. (previously presented) The lock of claim 92, further comprised of:

2                 a coil wound to provide conduction of an electrical current in response to  
3           said control signal; and

4                 said armature comprising an exterior surface exhibiting a rest position  
5           between said shell and said cylinder plug, said armature obstructing said rotation absent  
6           said conduction, accommodating said rotation during said conduction, and  
7           accommodating said rotation until said rotation returns said armature to said rest position  
8           after termination of said conduction.

1           94. (withdrawn) The lock of claim 92, further comprised of:

2                 a coil wound to provide conduction of an electrical current in response to  
3           said control signal; and

4                 said armature comprising an exterior surface exhibiting a rest position with  
5           said exterior surface extending between said shell and said cylinder plug while said  
6           cylinder plug is in alignment with said shell in a locked condition, said armature  
7           obstructing said rotation absent said conduction, accommodating said rotation during



8 said conduction by withdrawing from said shell and wholly into said cylinder plug,  
9 accommodating said rotation until said rotation returns said armature to said rest position  
10 after termination of said conduction, and resuming said rest position when said rotation  
11 restores said alignment.

1 95. (previously presented) The lock of claim 92, further comprised of:

2 a coil wound to provide conduction of an electrical current in response to  
3 said control signal; and

4 said armature comprising an exterior surface exhibiting a rest position  
5 between said bar and said cylinder plug, said armature obstructing said rotation absent  
6 said conduction, said armature accommodating said rotation during said conduction, and  
7 said armature accommodating said rotation until said rotation returns said armature to  
8 said rest position after termination of said conduction.

1 96. (previously presented) The lock of claim 92, further comprised of:

2 a coil wound to provide conduction of an electrical current in response to  
3 said control signal; and

4 said armature comprising an exterior surface exhibiting a rest position with  
5 said first orientation while said exterior surface is interposed between said bar and said  
6 cylinder plug and obstructs said rotation absent said conduction, said armature assuming  
7 said second orientation, withdrawing from said interposition and accommodating said  
8 rotation during said conduction, and said armature accommodating said rotation until  
9 said rotation returns said armature to said rest position with said first orientation after  
10 termination of said conduction.

1 97. (previously presented) The lock of claim 92, further comprised of:

2 a coil wound to provide conduction of an electrical current in response to

3     said control signal; and

4             said armature comprising an exterior surface exhibiting a rest position with  
5     said first orientation while said exterior surface is interposed between said bar and said  
6     cylinder plug and obstructs said rotation absent said conduction, said armature assuming  
7     said second orientation, withdrawing from said interposition and accommodating said  
8     rotation during said conduction, and said armature maintaining said second orientation  
9     and accommodating said rotation after said rotation returns said armature to said rest  
10    position after termination of said conduction.

1             98. (previously presented) The lock of claim 92, further comprised of:

2             a coil wound to provide conduction of an electrical current in response to  
3     said control signal; and

4             said armature comprising an exterior surface exhibiting a rest position with  
5     said first orientation while said exterior surface is interposed between said bar and said  
6     cylinder plug and obstructs said rotation absent said conduction, said armature assuming  
7     said second orientation, withdrawing from said interposition and accommodating said  
8     rotation during said conduction, said armature maintaining said second orientation and  
9     accommodating said rotation after said rotation returns said armature to said rest position  
10    after termination of said conduction, and said armature resuming said first orientation  
11    during renewal of said conduction subsequent to said termination.

1             99. (previously presented) The lock of claim 92, further comprised of:

2             a coil wound to provide conduction of an electrical current in response to  
3     said control signal; and

4             said armature comprising an exterior surface exhibiting a rest position  
5     while in said first orientation absent said conduction with a first thickness of said exterior  
6     surface interposed between said bar and said cylinder plug and with said cylinder plug in

7 alignment with said shell in a locked position, said armature exhibiting said second  
8 orientation and accommodating said rotation during said conduction with a second and  
9 lesser thickness of said exterior surface permitting movement of said bar relative to said  
10 cylinder plug, and said armature accommodating said rotation until said rotation allows  
11 said bar to reverse said relative movement and said armature to return to said rest position  
12 after termination of said conduction.

1 100. (previously presented) The lock of claim 92, further comprised of:  
2 a logic circuit borne by said cylinder plug, generating said control signal in  
3 response to a comparison between a code set within said logic circuit and a data signal  
4 applied to said logic circuit; and  
5 said electrical operator moving between said second orientation and said  
6 first orientation in response to said control signal.

Claims 101-104. (Canceled)

1 105. (previously presented) The process of claim 90, further comprising:  
2 orienting said side bar to travel along a plane that extends approximately  
3 radially relative to said electronically powered rotatable barrel when engaging said  
4 locking member; and  
5 positioning said locking member to move on an axis that is approximately  
6 perpendicular to said plane when said locking member is selectively moved from said  
7 barrel blocking position to said non-barrel blocking position.

1 106. (previously presented) The lock of claim 14, further comprising said bar

2 engaging both said shell and said plug during said movement between said plug and said  
3 cylinder.

1 107. (previously presented) The lock of claim 25, further comprising said bar  
2 engaging both said shell and said cylinder plug during said rotation.

1 108. (previously presented) The lock of claim 46, further comprising said bar  
2 engaging both said shell and said cylinder plug during said rotation.

1 109. (previously presented) The lock of claim 64, further comprising said sidebar  
2 engaging both said shell and said cylinder plug during said rotation.

1 110. (previously presented) The lock of claim 65, further comprising said bar  
2 engaging both said shell and said cylinder plug during said rotation.

1 111. (previously presented) The lock of claim 70, further comprising said bar  
2 engaging both said shell and said cylinder plug during said rotation.

1 112. (previously presented) The lock of claim 75, further comprising said bar  
2 engaging both said shell and said cylinder plug during said rotation.

1 113. (previously presented) The lock of claim 76, further comprising said bar  
2 engaging both said shell and said cylinder plug during said rotation.

1 114. (previously presented) The lock of claim 77, further comprising said bar  
2 engaging both said shell and said cylinder plug during said rotation.

1           115. (currently amended) ~~The lock of claim 85, further comprising~~ An  
2 electromechanical lock cylinder, comprising:

3                 an outer shell having a bore formed therein and a cavity extending from the  
4 bore into the shell;

5                 a barrel disposed within the bore in the shell and being rotatable relative to  
6 the shell;

7                 a side bar cooperating between the shell and the barrel for selectively  
8 permitting and blocking rotation of the barrel with respect to the shell, the side bar having  
9 a first portion engaging the barrel and a second portion removably received in the cavity  
10 in the shell, the side bar being movable relative to the barrel;

11                 at least one electromechanical locking member disposed within the barrel  
12 and positionable in a barrel blocking position blocking rotation of the barrel with respect  
13 to the shell, and also positionable in a non-barrel blocking position permitting the side  
14 bar to be moved relative to the cavity in the shell to rotate the barrel with respect to the  
15 shell; and

16                 said side bar engaging both said shell and said barrel during said rotation;

17                 an electronically powered drive mechanism located within the barrel and  
18 cooperating with the electromechanical locking member to selectively move the locking  
19 member from the barrel blocking position to the non-barrel blocking position in which  
20 the side bar moves out of the cavity and engages the locking member; and

21                 a controller activating the electronically powered drive mechanism in  
22 response to an authorized attempt to operate the lock cylinder.

116. (previously presented) The lock of claim 91, further comprising said bar  
engaging both said shell and said cylinder plug during said rotation.

Claims 117-118. (Canceled)

1           119. (currently amended) ~~The lock cylinder of claim 85, in which~~ An  
2 electromechanical lock cylinder, comprising:

3                 an outer shell having a bore formed therein and a cavity extending from the  
4 bore into the shell;

5                 a barrel disposed within the bore in the shell and being rotatable relative to  
6 the shell;

7                 a side bar cooperating between the shell and the barrel for selectively  
8 permitting and blocking rotation of the barrel with respect to the shell, the side bar having  
9 a first portion engaging the barrel and a second portion removably received in the cavity  
10 in the shell, the side bar being movable relative to the barrel;

11                 at least one electromechanical locking member disposed within the barrel  
12 and positionable in a barrel blocking position to block rotation of the barrel with respect  
13 to the shell, and also is positionable in a non-barrel blocking position to permit the side  
14 bar to be moved relative to the cavity in the shell; and

15                 said side bar ~~moves~~ moveable out of the cavity and engages the locking  
16 member, said side bar disposed to rotate with the barrel; and ~~operate the lock~~

17                 an electronically powered drive mechanism located within the barrel and  
18 cooperating with the electromechanical locking member to selectively move the locking  
19 member from the barrel blocking position to the non-barrel blocking position in which  
20 the side bar moves out of the cavity and engages the locking member; and

21                 a controller activating the electronically powered drive mechanism in  
22 response to an authorized attempt to operate the lock cylinder.

1           120. (currently amended) A rotatable lock barrel for insertion into a lock cylinder

2 having a bore formed therein, the barrel comprising:

3 an elongated, generally cylindrically shaped barrel member having an  
4 exterior configured for receipt in a bore of a lock cylinder and an interior containing a  
5 plurality of electromechanical locking members, the barrel member having a recess  
6 formed therein;

7 ~~wherein~~ the locking members ~~are~~ disposed in the recess of the barrel  
8 member and ~~are~~ substantially entirely contained within the barrel member, each of the  
9 locking members including a groove and the locking members being movable to a  
10 position in which the grooves of the locking members are aligned;

11 the recess in said barrel member being configured to receive at least a  
12 portion of a movable side bar of a lock cylinder to permit the side bar to move into and  
13 out of engagement with the grooves of the locking members for selectively permitting  
14 and blocking rotation of the barrel member with respect to a lock cylinder when  
15 positioned therein; and

16 an electronically powered drive mechanism located within the barrel  
17 member for moving the electromechanical locking members to a position in which the  
18 grooves of the locking members are aligned.

1 121. (currently amended) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an  
3 interior cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident within  
5 said hollow recess;

6 a bar interposed between said shell and a ~~said~~ cylinder plug detent  
7 extending radially from a second recess within said shell into a passage within said  
8 cylinder plug to create an obstruction to rotation of said cylinder plug within said hollow  
9 recess;

said cylinder plug comprising:

a first base and a second base separated by an axial length of said cylinder plug from said first base, said second base configured to support a cam; and

an electrical operator borne by said cylinder plug and rotatable with said cylinder plug, said electrical operator being electrically operable to respond to a control signal by moving independently of said detent between one of a first orientation accommodating relative movement between said detent and said cylinder plug and a second and different orientation maintaining obstruction of said relative movement by engaging said detent, ~~and another of said first orientation and said second orientation.~~

122. (New) A lock, comprising:

a shell containing a hollow recess defining a longitudinal axis and an interior surface;

a plug moveable relative to said longitudinal axis while resident within said recess, said plug comprising a first base presenting a key engaging feature and a second base separated by an axial length of said cylinder plug from said first base;

a detent interposed between said shell and said plug;

a logic circuit generating a control signal in response to a comparison between a code set within said logic circuit and a data signal applied to said logic circuit; and

an electro-mechanical operator comprising an electrically responsive member and an armature, said electro-mechanical operator, said electrically responsive member, said armature and said logic circuit being borne by said cylinder plug and moving relative to said longitudinal axis with said plug, said electro-mechanical operator responding to said control signal by moving said armature independently of said travel, between a first orientation cooperating with said detent to obstruct said movement and a



17 second and different orientation accommodating said movement.

1 123. (New) A lock, comprising:  
2 a cylinder containing a hollow recess defining a longitudinal axis;  
3 a plug moveable relative to said longitudinal axis while resident within said  
4 hollow recess, said plug comprising:  
5 a terminal portion providing a key engaging feature;  
6 an exterior surface extending from said terminal portion;  
7 a detent extending between said cylinder and said plug;  
8 an electronic logic circuit borne by said plug, coupled to receive data  
9 signals via said key engaging feature, and generating control signals in dependence upon  
10 said data signals; and  
11 an electro-mechanical operator borne by said plug, said operator having a  
12 distal member traveling relative to said plug in dependence upon said control signals  
13 between a first position cooperating with said detent and thereby obstructing movement  
14 of the plug relative to said cylinder and a second and different position accommodating  
15 said movement.

1 124. (New) The lock of claim 123, further comprising said logic circuit and  
2 electro-mechanical operator simultaneously experiencing said movement of the plug  
3 relative to said cylinder whenever said plug moves relative to said cylinder.

1 125. (New) The lock of claim 123, further comprised of said detent comprising a  
2 movable sidebar borne by said plug to create an obstruction to said movement of the plug  
3 relative to said cylinder and said plug.

1           126. (New) The lock of claim 123, further comprised of said detent comprising a  
2 movable sidebar borne by said plug to create an obstruction to said movement of the plug  
3 relative to said cylinder and said plug; and

4           a locking device disposed within said plug to release obstruction of said  
5 movement of the plug relative to said cylinder when a key engages in a selected relation  
6 with said locking device, and to maintain said obstruction absent said selected relation.

1           127. (New) The lock of claim 126, further comprising said logic circuit, said  
2 electro-mechanical operator, said sidebar and said locking device simultaneously  
3 experiencing said movement of the plug relative to said cylinder whenever said plug  
4 moves relative to said cylinder.